

## 1.

Screen for holding refuse sacks open.

The present invention relates to a screen for holding refuse sacks open.

US 4 760 982 A describes a device having a screen for holding refuse sacks open. At this device, the screen  
5 has two upwardly movable side panels which makes the construction relatively complex and thereby rather expensive to manufacture and difficult to handle. Neither is it possible to lock the screen and the refuse sack to each other by simple means.

10 The object of the present invention is to simplify and improve screens for refuse sacks and this is accomplished by providing the screen with the characterizing features of primarily claim 1.

Since the screen is shorter than the refuse sack,  
15 said sack may be folded into the screen, which is an advantage inter alia for holding reasons. Since the screen stretches the refuse sack, said sack is also better attached to the screen and is better protected thereby. Since a locking device locks the screen and refuse  
20 sack to each other, it is ensured that they do not loosen or separate from each other when carrying them with the refuse sack filled.

The invention will be further described below with reference to the accompanying drawings, in which

25 fig. 1 is a perspective view of a screen according to the invention;

figs. 2 and 3 are side views of a screen according to fig. 1 when said screen is provided with a refuse sack; and

30 fig. 4 is a front view of a screen according to fig. 1 with a refuse sack placed lying on a support.

The screen has an elongated shape and defines in cross section an arcuate or polygonal flute or groove having two longitudinal edges 2, 3 which are parallel or  
35 substantially parallel with each other and which there-

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between define a longitudinal opening 1a. First end portions 1b of the screen 1 have a transverse first edge 4 and second end portions 1c thereof have a transverse second edge 5. The edges 4 and 5 are, seen from the side, parallel or substantially parallel with each other. The edges 4 and 5 preferably extend perpendicular or substantially perpendicular to the longitudinal edges 2, 3.

The screen 1 has at least one handle opening 6 which is located at the second end portions 1c of the screen 1. At the embodiment shown, the screen 1 has three handle openings 6 which are elongated and provided in parallel with the second edge 5.

The screen 1 is designed to be located in a refuse sack 7 and it is shorter than the refuse sack 7. The refuse sack 7 is for the purpose of clarity illustrated with broken lines in fig. 1. More exactly, the screen 1 is designed to allow threading or pulling the refuse sack 7 over said screen such that parts of said sack will extend freely over and close the longitudinal opening 1a. The refuse sack 7 can be threaded or pulled onto the screen 1 until closed parts 7a of the sack 7 are situated at the first end portions 1b of the screen 1 and open parts 7b of the sack 7 at the second end portions 1c of the screen 1.

In order to accomplish this in a simple way, the screen 1 may first be placed upside down on a support 8 - see fig. 2. The refuse sack 7 is preferably threaded or pulled over the screen 1 such that the bottom 9 of said sack 7, at the closed parts 7a thereof, is situated at and/or engage the first edge 4 of the screen 1. The screen 1 may then be turned such that the first edge 4 thereof is directed downwards, whereupon the screen 1 can be placed on the support 8 through the bottom 9 of the refuse sack 7 - see fig. 3.

The screen 1 may have such length relative to the refuse sack 7 that open parts 7b of said sack 7 extend beyond the second edge 5 of the screen 1 and said open

## 3.

parts 7b can be folded into the screen 1 at said second edge 5.

The parts 12 of the refuse sack 7 located outside the screen 1 may preferably be inserted into the handle  
5 openings 6 such that one can get hold of said handle openings in order to lift and carry the screen 1 and the refuse sack 7 with or without content.

The screen 1 may be designed such that it stretches the refuse sack 7, which means that also the parts 12 of  
10 said sack extending over the opening 1a will be stretched to a planar shape.

The screen 1 may be made of elastic material which means that it is compressible from a basic shape to a narrower shape. The longitudinal edge 2 is thereby situa-  
15 ted closer to the longitudinal edge 3, which is indicated with broken lines in fig. 1. When the screen 1 has been given its narrower shape, this shape can be maintained by means of a holding-together member 13 which is attached to one 2 of the longitudinal edges 2, 3 of  
20 the screen 1 and which can be brought to extend across the opening 1a for engagement at the other longitudinal edge 3. When the screen 1 has been compressed to its narrower shape and is held therein by the holding-together member 13, it is narrower than the refuse sack 7, which  
25 thereby is easy to thread onto the screen 1 or is the screen 1 easy to insert into the refuse sack 7.

When the screen 1 is located inside the refuse sack 7, the holding-together member 13 is released from the said other longitudinal edge 3, whereby the screen 1  
30 springs outwards to its original, basic shape and thus, stretches the refuse sack 7.

The holding-together member 13 may be a wire, one end of which is attached or secured to the longitudinal edge 2 while the other end has a hook 14 with a suitable  
35 shape for hooking onto the other longitudinal edge 3.

There may also be a strip 15 (schematically illustrated with broken lines in fig. 1) which can be hooked on

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to or attached to the longitudinal edges 2, 3 by a snap-in action, such that the strip 15 extends across the opening 1a at the second end portion 1c of the screen 1. The open parts 7b of the refuse sack 7 may be folded  
5 over this strip 15, which stiffens the screen 1 and the refuse sack 7 and protects the sack when it is filled.

The embodiment of the screen 1 described above permits location thereof, with a refuse sack 7, standing free and upright on the support 8 - see fig. 3 - whereby  
10 by the screen 1 continuously holds the refuse sack 7 open so that refuse can be filled therein from above. Thus, the screen 1 defines a support for the refuse sack 7, which allows the sack 7 to stand upright.

As is apparent from fig. 4, the screen 1 and the  
15 refuse sack 7 can be laid down on the support 8 such that the planar or substantially planar parts 12 of the refuse sack 7 are found at or close to the support 8. Hereby, insertion of refuse from the support 8 into the refuse sack 7 is facilitated and this is particularly  
20 relevant if the support 8 is relatively level and if the planar parts 12 can be located close thereto and/or at least partially can be brought to engage said support 8. Also when the screen 1 and the refuse sack 7 are lying down, the screen 1 keeps the sack 7 open.

25 When refuse is filled into the refuse sack 7, the screen 1 forms an inner protection in the sack 7 for protection thereof from the inside against penetration by refuse - e.g. twigs - which is inserted into the sack 7. This is true irrespective of whether the screen 1  
30 with the refuse sack 7 stands up or lies down.

When refuse has been filled into the refuse sack 7, said sack 7 may, by means of the screen 1, be carried to a suitable spot for emptying or storage. During this transport of the refuse sack 7, the screen 1 forms a  
35 type of transport handle. When the screen 1 is no longer needed, it can be pulled out of the refuse sack 7, which then can be tied up at the top. The risk for overfilling

## 5.

the refuse sack 7 is less while the sack 7 can resume its original shape when the screen 1 is removed therefrom.

5 The longitudinal edges 2, 3 of the screen 1 may be designed such that they do not damage the refuse sack 7 or are said edges 2, 3 provided with members preventing damage of the refuse sack 7.

10 There is preferably provided a locking device 11 for locking the open parts 7b of the refuse sack 7 to the screen 1 so that said refuse sack 7 can not unintentionally slip off the screen 1 or vice versa. This locking device 11 may e.g. include pins 11a which can extend outwards from the second end portions 1c of the screen 1. The open parts 7b of the refuse sack 7 can be  
15 pressed against these pins 11a preferably such that the refuse sack 7 is penetrated thereby and the sack 7 is effectively locked to the screen 1.

The screen 1 may preferably be made of thin-walled polypropylene material or similar and it may be elastic.

20 The refuse sack 7 may be of plastic bag type or similar, which can be tied up after removal of the screen 1.

The invention is not limited to the embodiment described above and illustrated in the drawings, but may vary within the scope of the subsequent claims. As an  
25 example of an embodiment not further described it can be mentioned that the screen 1 can be piled and have a low weight.